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# CANADIAN PATENT

(54)

ELASTIC COATING FOR SPORTS TRACKS

(70)

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No. OF CLAIMS 1

ABSTRACT OF THE DISCLOSURE

An elastic coating for sports tracks comprises a three-dimensional network made of a helical wire and embedded into an elastic material. The three-dimensional network has a thickness which is greater than the length of the calk of a sports shoe worn on the sports floor. The coating comprises a plurality of helical wires which are bound together by an interlacing of three helical wires in the longitudinal and transverse directions.

The present invention relates to coatings for sports tracks adapted to be used for competitions between sportsmen wearing shoes provided with calks.

Coatings for sports tracks, comprising a base over which a layer of an elastic material is placed, are widely known.

An elastic layer may be made of a rubber-bituminous or synthetic material and represents a medium contacting with the sole of a sports shoe by means of calks functioning like a drawing-pin and driven into a coating by an impact force of a sportsman's foot.

This mode of contacting the calks of a shoe with a coating in speed running requires useless consumption of energy and time of a sportsman, which does not contribute to the achievement of maximum results.

In order to reduce the force necessary to break contact between the foot and the track or to prevent slippage, it was heretofore necessary to select the length of calks of sports shoes in dependance of a type of an elastic layer.

However, reduction of the calk length results, in its turn, in a decrease of an angle of rise on the toe at which the adherence of the calk to a coating is possible, since the calks are arranged on the sole at some distance



from the shoe toe. Reduction of the length results in the foot slippage with respect to a coating.

An elastic layer of prior art coating is rapidly aged and worn out under the action of calks which constitutes substantial disadvantage of prior art coatings.

Prior art coatings are also deficient in that an elastic layer changes its properties with climatic and maintenance conditions.

It is an object of the present invention to eliminate  
10 the above disadvantages.

It is an object of the present invention to eliminate slippage of calks with respect to a coating.

Another object of the invention is to prevent the calks from attriting with and adhering to the surface of an elastic coating in breaking contact between a runner's foot and the coating.

Yet another object of the invention is to provide an elastic coating which ensures free penetration and release of a sports shoe calks into and out of an elastic layer, as well  
20 as free pushing off without making great efforts.

These and other objects of the invention are accomplished by the provision of an elastic coating for sports tracks, comprising, according to the invention, a three-dimensional network made of a helical wire and embedded into an elastic material, the thickness of said network being greater than the length of the calk of a sports shoe.

One of the advantages of the coating according to the invention, which comprises a three-dimensional network, resides in that it eliminates the attrition and adherence of calks.

The coating according to the invention provides free abuttment for a sportsman's foot in pushing off due to the meshes of a three-dimensional network and saves muscular energy thereof.

Better understanding of the invention may be had from the following detailed description with reference to the accompanying drawings, in which:

FIGURE 1 shows a base and a coating (longitudinal section);

10 FIGURE 2 is a brading pattern of a three-dimensional network.

The elastic coating 1 according to the invention (Figure 1) is filled with an elastic material 2 and is then attached with an adhesive to a concrete or asphalt surface which constitutes a base 3 laid on the ground 4.

A three-dimensional network (Figure 2) comprises an interlacement of single helical 5, with the knots 6 binding the network meshes consisting of three helices. The helices 5 may be made of a metal or synthetic material.

20 An elastic material 2 of the elastic coating 1 completely covers the three-dimensional network and forms the flat uniform surface.

The thickness of the three-dimensional network is such that it is greater than the length of the calk of a sports shoe thereby permitting free pushing off the surface of the elastic layer thus eliminating slippage.

The elastic coating according to the invention may be used in covered sports halls and in stadiums for training and competitions between sportsmen wearing shoes provided with calks.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:-

1. An elastic coating for sports tracks for use in association with sports shoes having calks and comprising: a three-dimensional network made of helical wire; an elastic material completely embedding said network, the thickness of said network being greater than the length of the calks of said sports shoe, characterized in that said network comprises a plurality of helical wires, said helical wires being bound together by an interlacing of three helical wires in the longitudinal and transverse directions.

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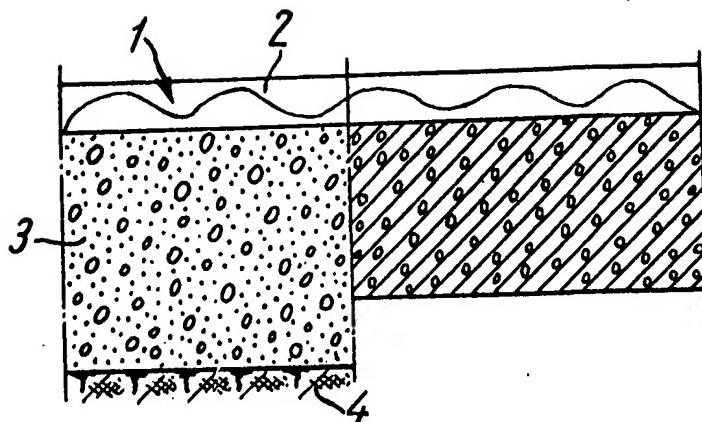


FIG. 1

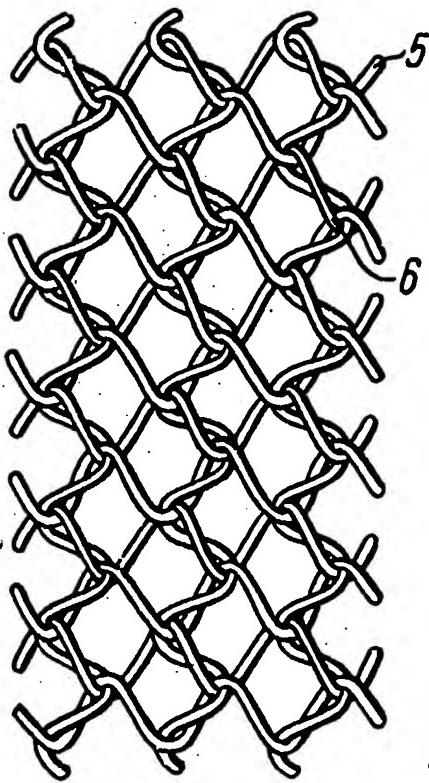


FIG. 2

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